

CLAIMS

1. A method for treating irritable bowel syndrome in a subject in need of such treatment, comprising administering to said subject an amount of a polyamine effective to treat irritable bowel syndrome in said subject, said polyamine being selected from the group consisting of polyamine having the formula:

- 1) $R-NH-(CH_2)_a-NH-(CH_2)_b-H-(CH_2)_c-NH_2$,
- 2) $CF_3-C_6H_5-(CH_2)_a-NH-(CH_2)_b-NH-(CH_2)_c-NH-(CH_2)_d-NH-(CH_2)_e-C_6H_5-CF_3$,
- 3) $R-NH-(CH_2)_a-NH-C_6H_6-NH-(CH_2)_b-NH-R$ and
- 4) $PIP-(CH_2)_a-NH-(CH_2)_b-NH-(CH_2)_c-PIP$,

wherein:

R is alkyl, aryl, aralkyl, alkaryl, or cyclo-alkyl having up to about 10 carbon atoms, and any of said alkyl chains may optionally be interrupted by at least one etheric oxygen atom,

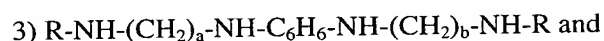
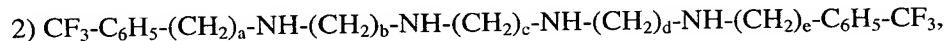
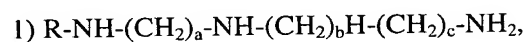
PIP is piperidine and

a, b, c, d, and e may be the same or different and are integers from 1-10.

2. The method of claim 1 wherein said subject is human.

3. The method according to claim 1, wherein said polyamine is administered at a dose between about 0.0001 mg/day and about 500 mg/day.
4. The method according to claim 1, wherein said polyamine is administered in one or more forms selected from the group consisting of orally, parenterally, transdermally, or by suppository.
5. The method according to claim 1, wherein said polyamine is administered orally.
6. The method according to claim 1, wherein said polyamine is administered parenterally.
7. The method according to claim 1, wherein said compound is 1) $R-NH-(CH_2)_a-NH-(CH_2)_bH-(CH_2)_c-NH_2$.
8. The method according to claim 1, wherein said compound is 2) $CF_3-C_6H_5-(CH_2)_a-NH-(CH_2)_b-NH-(CH_2)_c-NH-(CH_2)_d-NH-(CH_2)_e-C_6H_5-CF_3$
9. The method according to claim 1, wherein said compound is 3) $R-NH-(CH_2)_a-NH-C_6H_5-NH-(CH_2)_b-NH-R$.
10. The method according to claim 1, wherein said compound is 4) $PIP-(CH_2)_aNH-(CH_2)_b-NH-(CH_2)_c-PIP$.

11. A pharmaceutical composition in unit dosage form adapted for administration to a subject suffering from irritable bowel syndrome comprising an amount of a polyamine therapeutically effective to treat irritable bowel syndrome and a pharmaceutically acceptable carrier therefore, said polyamine being selected from the group consisting of polyamines having the formula:



wherein:

R is alkyl, aryl, aralkyl, alkaryl, or cyclo-alkyl having up to 10 about carbon atoms, and any of said alkyl chains may optionally be interrupted by at least one etheric oxygen atom,

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12. The composition according to claim 10 wherein the form thereof is such that it may be administered orally, parenterally, transdermally, or by suppository.

13. The composition according to claim 10 wherein the form thereof is such that it may be administered orally.

14. The composition according to claim 10 wherein the form thereof is such that it may be administered parenterally.

15. The method according to claim 10, wherein said compound is 1) $R-NH-(CH_2)_a-NH-(CH_2)_bH-(CH_2)_c-NH_2$.

16. The method according to claim 10, wherein said compound is 2) $CF_3-C_6H_5-(CH_2)_a-NH-(CH_2)_b-NH-(CH_2)_c-NH-(CH_2)_d-NH-(CH_2)_e-C_6H_5-CF_3$,

17. The method according to claim 10, wherein said compound is 3) $R-NH-(CH_2)_a-NH-C_6H_6-NH-(CH_2)_b-NH-R$.

18. The method according to claim 10, wherein said compound is 4) $PIP-(CH_2)_aNH-(CH_2)_b-NH-(CH_2)_c-PIP$.

19. An article of manufacture comprising packaging material and a pharmaceutical agent contained within said packaging material, wherein said pharmaceutical agent is effective for the treatment of a subject suffering from irritable bowel syndrome, and wherein said packaging material comprises a label which indicates that said pharmaceutical agent can be used for ameliorating the symptoms associated with irritable bowel syndrome, and wherein said pharmaceutical agent is selected from the group consisting of polyamines having the formula:

1) $R-NH-(CH_2)_a-NH-(CH_2)_bH-(CH_2)_c-NH_2$,

2) $CF_3-C_6H_5-(CH_2)_a-NH-(CH_2)_b-NH-(CH_2)_c-NH-(CH_2)_d-NH-(CH_2)_e-C_6H_5-CF_3$,

3) $R-NH-(CH_2)_a-NH-C_6H_6-NH-(CH_2)_b-NH-R$ and

4) $PIP-(CH_2)_aNH-(CH_2)_b-NH-(CH_2)_c-PIP$,

wherein:

R is alkyl, aryl, aralkyl, alkaryl, or cyclo-alkyl having up to about 10 carbon atoms, and any of said alkyl chains may optionally be interrupted by at least one etheric oxygen atom,

PIP is piperidine and

a, b, c, d, and e may be the same or different and are integers from 1-10.